

W. Scott Randolph
Director – Regulatory Affairs



Corrected Ex Parte

April 22, 2002

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Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
445 Twelfth Street, S.W.
Washington, DC 20554

Ex Parte: Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers – CC Docket No. 01-338

Implementation of the Local Competition Provisions in the Telecommunications Act of 1996 - CC Docket No. 96-98

Deployment of Wireline Services Offering Advanced Telecommunications Capability – CC Docket No. 98-147

Dear Ms. Dortch:

On April 17, 2002, Representatives from Verizon met with the staff of the Office of Engineering and Technology and the Wireline Competition Bureau to review plans to deploy DSL capabilities in remote terminals in selected Verizon-East locations. We discussed the architecture and technology to be deployed, various technical and operational issues, Verizon's planned wholesale offering, and 2002 deployment plans. The attached material was used in the discussions.

Representing Verizon were Charles Kiederer, Mike Nawrocki, Augie Trinchese, Ed Shakin, and the undersigned. Attendees from the Office of Engineering and Technology were Behzad Ghaffari, Shanti Gupta, Yoon Chang, Paul Marrangoni, Whitey Thayer, Richard Hovey, and Jerry Stanshine. Participating from the Wireline Competition Bureau were Cathy Zima, Jonathan Kraushaar, Daniel Shiman, Robert Tanner, and Jamal Mazrui.

Pursuant to Section 1.1206(a)(1) of the Commission's rules, an original and one copy of this letter are being submitted to the Office of the Secretary. Please associate this notification with the record in the proceedings indicated above. If you have any questions regarding this matter, please call me at (202) 515-2530.

Sincerely,

A handwritten signature in black ink, appearing to read "W. Scott Randolph".

W. Scott Randolph

Attachment

cc:	Behead Ghaffari	Shanti Gupta
	Yoon Chang	Paul Marrangoni
	Whitey Thayer	Richard Hovey
	Jerry Stanshine.	Cathy Zima
	Jonathan Kraushaar	Daniel Shiman
	Robert Tanner	Jamal Mazrui



DSL at the Remote Terminal Deployment

**FCC/Verizon Meeting
April 17, 2002**

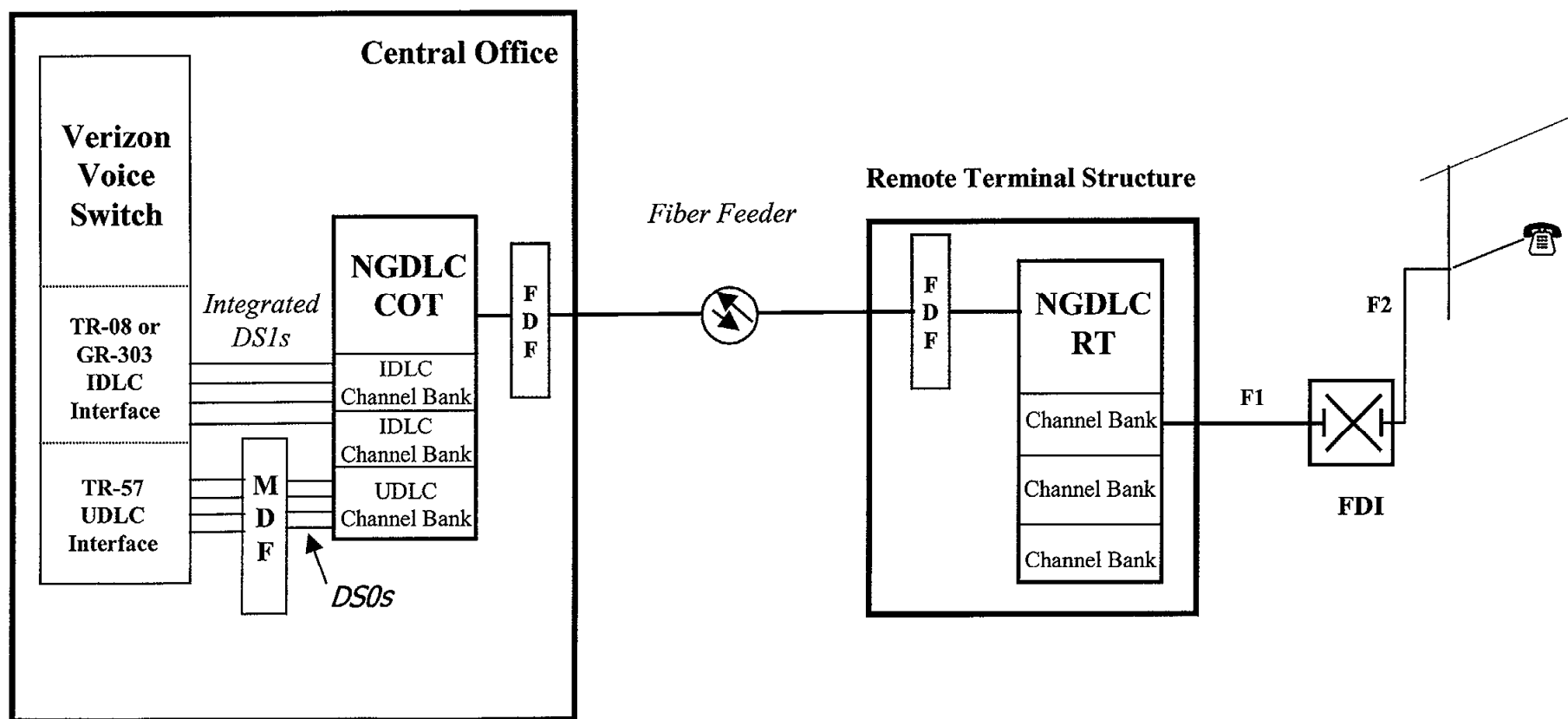


FCC/Verizon RT Meeting

- **Verizon NGDLC Architecture**
- **Integrated DSL at the RT Technology**
- **DSL at the RT Technical/Operational Issues**
- **DSL Deployment Alternatives at the RT**
- **PARTS Service Architecture**
- **2002 DSL at the RT Deployment Plans**



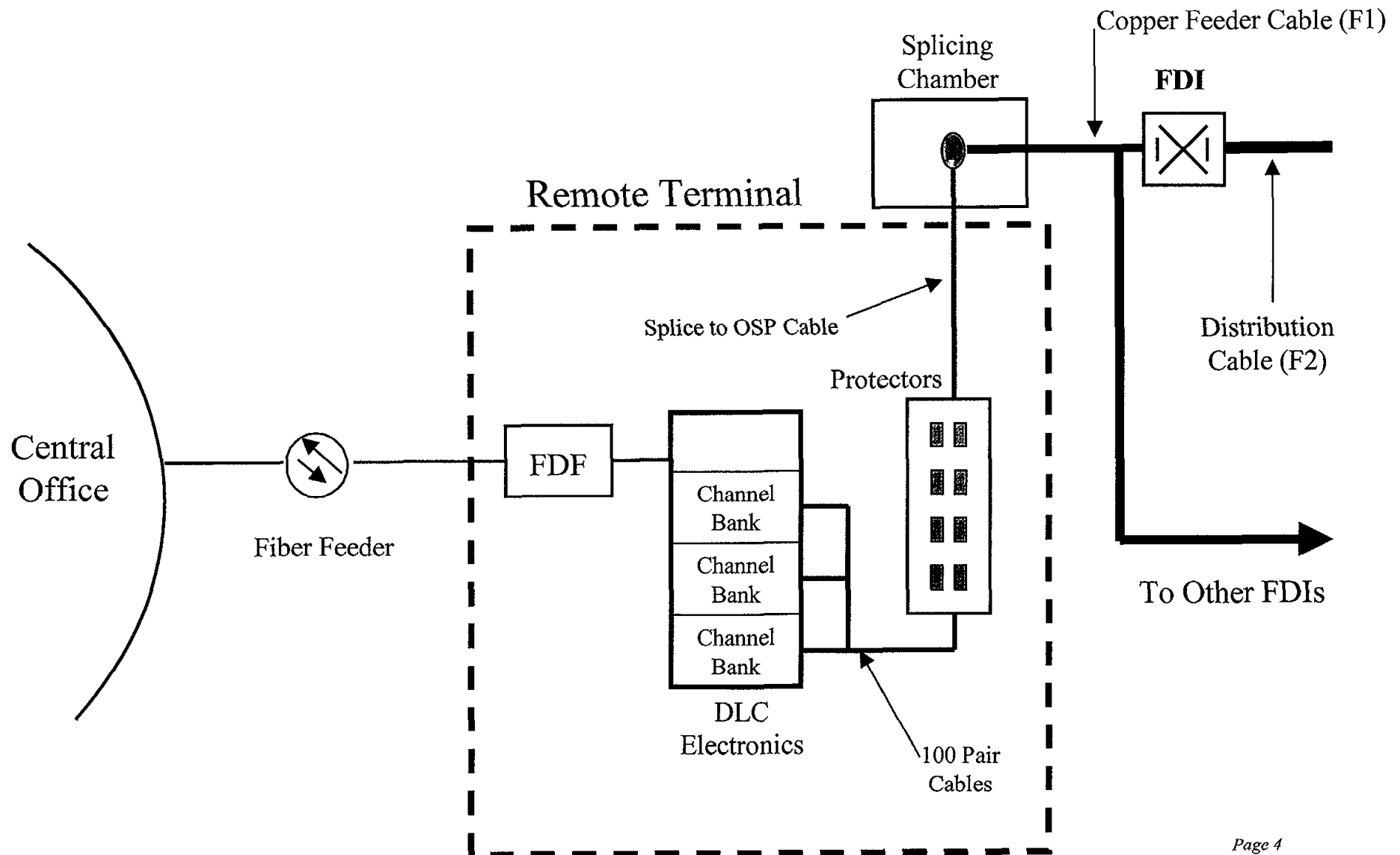
Generic NGDLC Architecture





verizon

Typical Remote Terminal Architecture



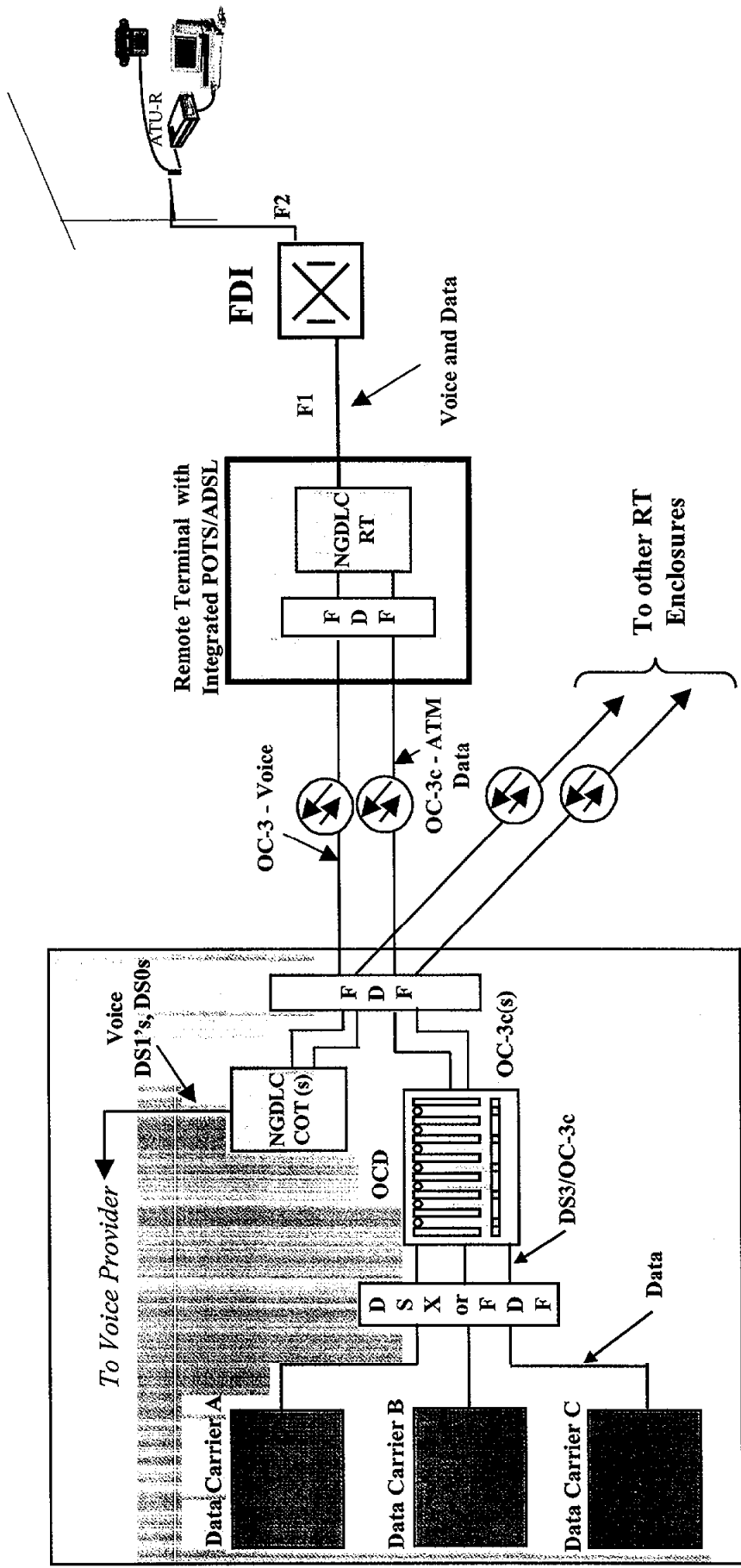


NGDLC with Integrated ADSL

- **Requires new ADSL-capable line cards, common cards, software and data transport infrastructure**
- **ADSL functionality is dependent on how vendors have implemented ATM design on their existing products**
- **ADSL “retrofit” strategy is also vendor dependent**
- **Vendors have implemented voice and data transport from the RT to the central office with different architectures**
 - **Separate OC-3/OC-3c transport paths for voice and data**
 - **Multiplexed DS1s/DS3s for voice and data**

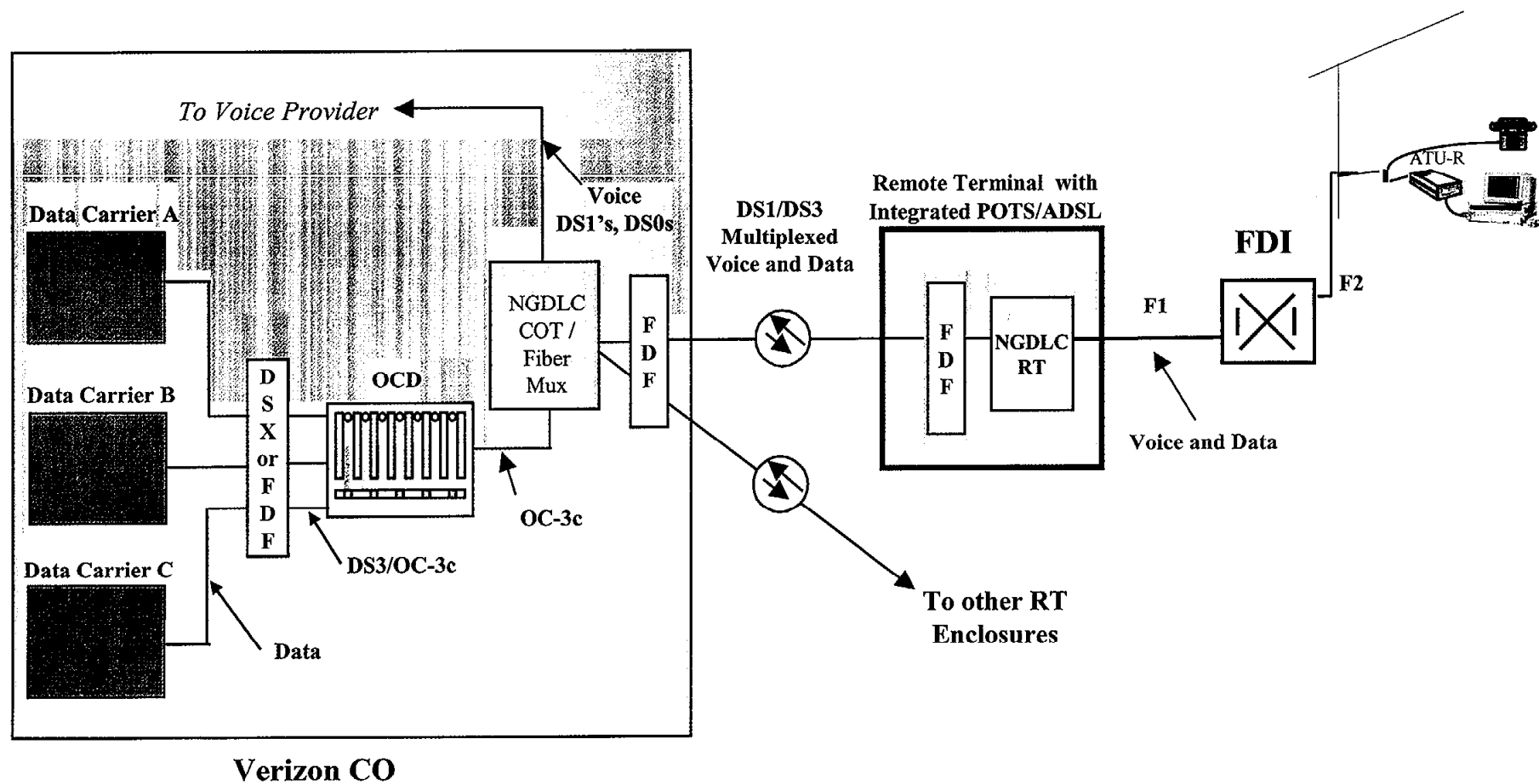


NGDLC with Separate Voice and Data Transport



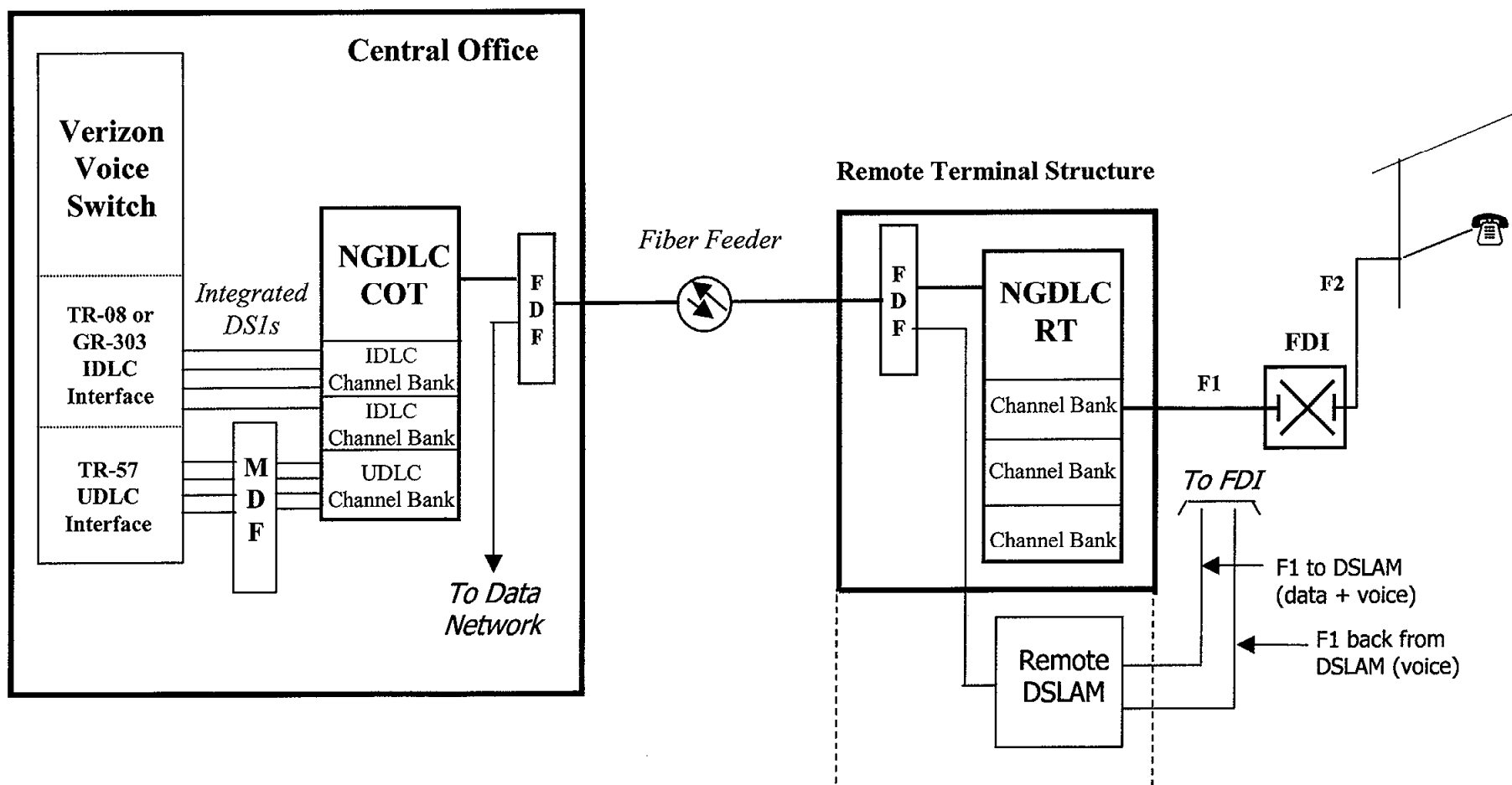


Alternative - NGDLC with Multiplexed Voice and Data Transport



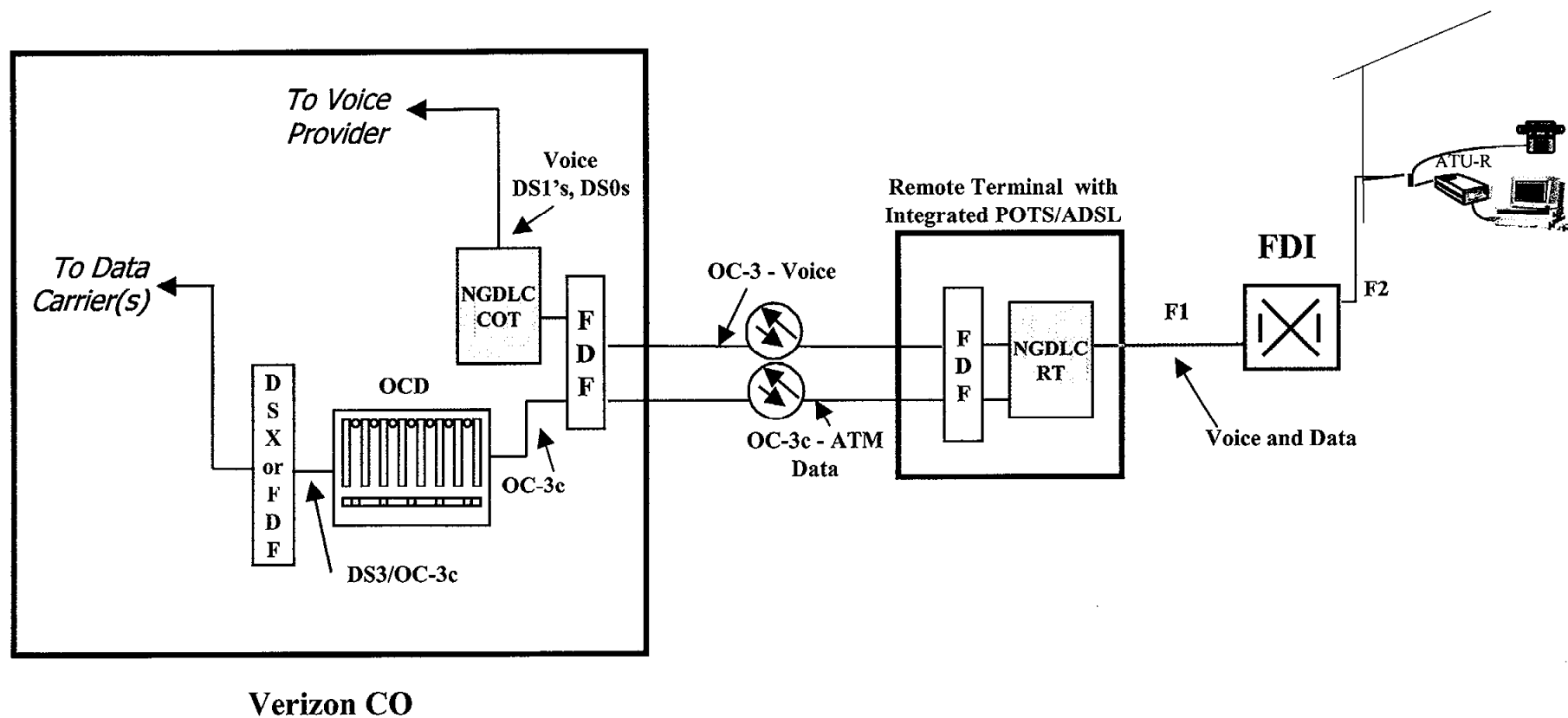


Alternative - Deploy Overlay DSLAM at RT





Packet at the Remote Terminal Service (PARTS) Architecture





Integrated ADSL - NGDLC Issues

- **New NGDLC deployments (since approximately 2Q01) are generally pre-configured for integrated DSL (but no DSL hardware)**
- **Upgrading existing NGDLC for ADSL capability requires:**
 - **Sufficient system capacity**
 - **Addition of new ADSL line cards**
 - **New common cards**
 - **New Software**
 - **Transport capacity for Data**
 - **Power and environmental review**
 - **Site-by-site evaluation**



Integrated ADSL - OSS Issues

- **Operations Support System (OSS) upgrades and process development required for network creation, provisioning, surveillance and service assurance**
- **OSS enhancements are required for:**
 - **Integrated ADSL at the RT capability**
 - **PARTS “wholesale” service offering**
- **Additional OSS development would be required for ADSL at RT unbundling, line card collocation, etc.**



2002 DSL at the RT Deployment

- **Limited deployment of approximately 15 RTs in Verizon East locations**
- **Plan to deploy OCDs in associated Central Offices**
- **Site surveys being conducted**
- **Equip RTs with *integrated* DSL/POTS capability**
- **Network Disclosure released in February 2002**
- **FOA announced in Marshfield, MA starting 3Q02**
- **CLECs will be notified of future locations and timing**



Glossary

<i>ADSL</i>	Asymmetrical Digital Subscriber Line
<i>ATM</i>	Asynchronous Transfer Mode
<i>ATU-R</i>	ADSL Terminal Unit - Remote
<i>CLEC</i>	Competitive Local Exchange Carrier
<i>COT</i>	Central Office Terminal
<i>DSL</i>	Digital Subscriber Line
<i>DSX</i>	Digital Signal Cross-Connect
<i>FDF</i>	Fiber Distribution Frame
<i>FDI</i>	Feeder Distribution Interface

<i>IDLC</i>	Integrated Digital Loop Carrier
<i>MDF</i>	Main Distribution Frame
<i>NGDLC</i>	Next Generation Digital Loop Carrier
<i>OCD</i>	Optical Concentration Device
<i>OC-N</i>	Optical Carrier signal level (N)
<i>OSP</i>	Outside Plant
<i>POTS</i>	Plain Old Telephone Service
<i>RT</i>	Remote Terminal